JOURNAL OF ACCOUNTING AND BUSINESS EDUCATION

P-ISSN 2528-7281 E-ISSN 2528-729X

E-mail: jabe.journal@um.ac.id

http://journal2.um.ac.id/index.php/jabe/

The Value of GARP Investing: Evidence from the Indonesian Stock Exchange

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DOI: *http://dx.doi.org/10.26675/jabe.v5i2.15743*

Abstract: The purpose of this study was to examine whether or not the GARP in selecting the stock portfolios can provide a more stable growth rate of return when compared to the value stock and growth stock as well as to examine the stock return on value stock and growth stock based on the changes in its fundamentals. The population in this study was all companies listed on the Indonesia Stock Exchange (known as IDX) in the period of 2015-2019. The samples were selected using a comparative-quantitative approach and consisted of 20 companies: seven companies included in the value stock portfolio category and ten companies included in the portfolio category. Growth stock and three companies were included in the GARP's stock portfolio category. The formation of stock portfolios in the company's fundamentals was based on price to book value ratio, price-earnings ratio, and price-earnings growth ratio. This study used the ANOVA method equipped with SPSS by performing four tests: Homogeneity of Variance, Between-Subject, Post Hoc, and Homogenous Subset test. The results of this study show that there were differences in the portfolio return of value stocks, growth stocks, and GARP stocks on the Indonesia Stock Exchange in the period of 2015-2019. Meanwhile, the GARP investment strategy was stable for the growth when compared to the value investment and growth investment in the Indonesia Stock Exchange in the period of 2015-2019. The implementation of GARP concept in managing the investment portfolios and criteria for choosing the stocks have the profitable growth, first in forming the GARP because investors in the stock market tend to expect obtaining high investment returns with a limited time horizon. The implementation of GARP concept has prevented the investors from the value trap because the GARP strategy is a hybrid solution for the growth stock and value stock, thus. The GARP investors will experience a combination of returns.

Article History
Received:
25 August 2020

Revised:
28 February 2021

Accepted:
5 Maret 2021

Keywords
GARP investment, stock portfolio, company's fundamentals, Indonesia Stock Exchange

Citation: Priyanto, P. (2020). The Value of GARP Investing: Evidence from the Indonesia Stock Exchange. *Journal of Accounting and Business Education*, *5*(1), 9-20

INTRODUCTION

In capital market, there are various types of investors with various investment methods. In stock development, there are various concepts in selecting stocks to be purchased by the investors, including value investment, investment growth, and others to be performed in this study, namely the Growth-At-a-Reasonable Price (GARP). Every investor has different views and ways of thinking in examining the present value and estimating the future value of a company. So, there are differences in the list of stocks included in the portfolios, including value stocks, growth stocks, and GARP stocks.

Topics on value stocks and growth stocks have spread throughout the world and invite academicians to conduct the related research. Various researchers, such as Fama & French (1998), Chan

& Lakonishok (2004), and Scott Bauman & Miller (1997), examined the return, risk, and overall performance of value stocks and growth stocks. The results of this study indicated that value stocks tended to produce a higher return than growth stocks did or better known as value premium phenomenon.

In the previous research conducted by Sumantika (2016) on the Rate of Return of Value Stock and Growth Stock: Comparison Based on the Company's Fundamentals and Holding Period, the results show that the value of stocks were classified as a loser at t-1 became a winner at t + 1. At the same time, stock growth stocks were classified as a winner at t-1 became a loser at t + 1. However, in the long run (10-year holding period), the researcher found no guarantee that the value of stocks outperformed the stock growth. These stock values generated a higher level, especially when there was a positive change in the company (undervalued stock value). On the other hand, the growth stock will produce the lowest rate, especially when investors realize that the actual growth is lower than the expected growth rate or, in other words, when there are problems in terms of company's financial performance.

A study focusing on the emerging markets, that is, the Singapore capital market conducted by Hodnett & Hsieh (2012) tried to identify stocks with the above-average sales growth trading at a multiple average or below average price-to-sale. Their performance related to the pure growth portfolios was further analyzed. After using various historical growth rates compared to the previous month, prior year, historical lows and highs as measures of potential growth and some price-to-sales as measures of stock price fairness, the growth-on-fair price (GARP) portfolios on the Taiwan Stock Exchange in the period of 1 January 2000-31 March 2010. The results of the study show that GARP's portfolios outperformed its partners' pure growth portfolios during the review period. The additional contribution of GARP as measured in terms of the increased return, reduced risk, and increased Sharpe ratio when switching from the pure growth stock selection technique to GARP selection technique, was proven significant during the examination period.

In contrast to the previous research, Hussaini (2016) who conducted a research in Thailand, found some evidence that stock value did not produce an average monthly profit higher than growth stock or that there was no value premium phenomenon. Return value stock and growth stock cannot differ outside of the US capital market due to the differences in ways investors behaved in these markets (Rasul, 2011). Bauman & Johnson (1996) also stated that the quality and information of investment research information varied from country to country. Based on these findings, this research was essential to conduct in the Indonesian capital market because the performance of Indonesian capital market is one of the best capital markets in the world. The Indonesian capital market has a long life and becomes the oldest in Southeast Asia, while in Asia, the Indonesian capital market ranked the fourth after Bombay in 1830, Hong Kong in 1981, and Tokyo in 1871.

The emergence of Growth at Reasonable Price (GARP) itself is a solution to the weaknesses of two investment concepts. A concept combines the value investment and investment growth and selects stocks with the constant growth. The basic concept for GARP is to find stocks made to grow but sell at a fair price. GARP itself does not need to buy stocks at a significant discount. Finding a bright business growing over a long term and selling at a fair price are the GARP's main goals.

The question of this research is related to how the concept of investment is. GARP can outperform the other investment concepts, such as value investment and growth investment. Of course, GARP's strategy does not just pay off the PEG ratio. According to investors, GARP is the view that profitable growth can only be obtained if the financial conditions are stable. The capital structure is included in these criteria. The oversized debt also toppled the ship portfolios when the wind reversed. Furthermore, a reasonably high ROE is one indicator to use as a guide for finding the GARP stocks.

The favoritism of value stocks in the empirical literature raises the question whether or not the investors indeed overvalue the perceived prospects of growth stocks. Broussard et al (2005) argued that the superiority of value investment could be attributed to either the assertion that the stock value is a risk, or to the misspecification of growth manifested by the investors. Baker & Nofsinger (2011) argued that investors often labeled the good companies with strong past performance as the suitable investments without considering the sustainability of past performance and cost of investment. This argument implies that the growth of investors should be more discipline about the price they pay for the firms' future

growth prospects. The concept of growth-at-a-reasonable-price (GARP) investment strategy is essentially a strategy that seeks stocks with the above-average earnings growth and average or below-average price multiples.

This study tried to draw a comparison between performances of portfolios formed based on the pure growth criteria and portfolios formed based on the selection criteria of GARP on the Indonesia Stock Exchange in the period of 2015-2019. The purpose of this study was to examine whether the selection of GARP stock portfolios can provide a more stable growth rate of return compared to the value stock and growth stock and to examine the stock return on value stock and growth stock based on changes in its fundamentals. Perhaps, the main benefit of these strategies is the displacement of a systematic framework, so that they can allocate to compel the growth stories, even if only when they trade with some reasonable facts.

LITERATURE REVIEW AND HYPOTHESES

Portfolio Theory

Stuart & Markowitz (1959) said that the portfolio must be diversified to reduce risk. Optimal portfolio formation by using the Markowitz model on the JII index, found the results to form an optimal portfolio. An investor can diversify stocks, by choosing some incoming stock portfolios and the certification process can reduce the risk level by collecting some different stocks (Yunita, 2018). A stock portfolio consists of several companies' stocks different from the expectation when there is one decreasing stock, while the others increase, and consequently the investment has not suffered a loss. Furthermore, the correlation between returns of one stock and another will also reduce the variance of return of the portfolio (Zubir, 2011).

The more the types of investment are selected, the less the investment risks will be. However, the number of excess portfolios can also be bad. A fat or excess portfolio will cause excessive costs. So, profits will be reduced due to the many incurring costs. There are limitations in preparing an investment portfolio. Risks that will always arise and cannot be eliminated by the diversification are known as systematic risks. Meanwhile, the unsystematic risk which can be eliminated or reduced by diversification and addition of all existing risks is known as portfolio total risk. The portfolio risk is then well-diversified depending on the market risk of each stock included in the portfolio (Husnan, 2008). Risk is how likely it is that the realized profit rate will be deviated from the expected rate of profit (Djaja et al., 2015).

Sharpe was developed by Willian Sharpe and is frequently referred to as the reward-to-variability ratio. Based on the Sharpe Index calculations, the capital market line concept is a benchmark created by dividing the portfolio risk premium by its standard deviation. Treynor developed by Jack Treynor is also called the reward to volume ratio, and the Treynor index is different from the Sharpe index because the Treynor index uses the Security Market Line as a benchmark, and not the capital market line used by the Sharpe index. Then, Treynor assumes that the portfolio is well identified so that the relevant friendly risk is the systematic risk (measured by beta). Jensen is an index that shows the difference between the actual rate of return obtained by the portfolio and the expected rate of return if the portfolio is on the market line capital. This Jensen index exceeds the returns above or below the security market line (Tandelilin, 2010).
The portfolio performance measurement also can be done by using the Treynor Index. The index developed by Jack Treynor is often called the reward to volatility ratio. According to Hartono (2013), "The portfolio performance calculated by this gauge is done by dividing the excess return with the portfolio volatility." Furthermore, Tandelilin (2010), mentioned that the measurement of portfolio performance using the Treynor Index is seen by connecting the portfolio return rate with the risk of portfolio by assuming that the portfolio is well diversified so that the relevant risk is measured by beta. If a portfolio is not well-diversified, the ranking obtained between the Sharpe and Treynor Indices will be different.

In addition to these two indices, Tandelilin (2010) argued that portfolio performance can also be measured using the Jensen Index to show the difference between the actual rate of return obtained by the portfolio and the expected rate of return if the portfolio is on the capital market line. Just like the Treynor

Index activity, this measuring tool method assumes that the portfolio is fully diversified so that the only risk to the portfolio is systematic.

Growth at Reasonable Price (GARP)

GARP investment is a disciplined growth investing approach rather than a new investment style Scott et al. (2003) investigated the effects of behavioral biases in the stock market valuation by analyzing the returns on portfolios with different intersections between their respective earnings growth and P/E ratio rankings. The study results provide some evidence related to the merits for the value investment over the period of 1989-1997. According to the Standard & Poor's guide for selecting stocks, published in 2005, the primary screens for GARP stocks is the P/E-to-growth (PEG) ratio, and GARP investors should avoid stocks with above-average debt-to-equity ratio and below-average return-on-equity (ROE). These criteria prevent firms that are overpriced and firms that employ leverage to maintain their high growth levels to be included in the portfolio (Damodaran, 2012). Ahmed & Nanda (2001) argued that value and growth investment strategies should not be mutually exclusive. In particular, the substantial growth in earnings is a better proxy for identifying the growth stocks when compared to the P/E ratio. Adopting a strategy selecting stocks with low P/E ratio and high earnings growth (virtually a GARP investment strategy), Ahmed & Nanda (2001) found the new strategy to outperform the traditional low P/E investment strategy on a risk-adjusted basis over the period of 1982-1997.

An investigation on the responsiveness of growth stocks and value stocks to earnings announcements conducted by Gulen et al. (2011) revealed that value stocks responded more drastically to positive earnings surprises and were less sensitive to negative earnings surprises. Thus, growth investment could be subject to higher downside risk compared to the value investment. The results of study conducted by Fama & French (1998) and (Gulen et al., 2011) implied that growth stocks are more likely to be overpriced when compared to the value stocks. A research conducted by Hidayat & Hendrawan (2017) examined the portfolio making using PER and PEG at an index of Lq 45 in the selection of a list of stocks in the portfolio and found that a stock was relatively undervalued and had a high return versus the average return obtained by the JCI market return. Tobin's q model and PER portfolio with Compass index sample of 100 obtained a return of above the JCI market. If the investors exchange portfolios, more active semester strategies will obtain higher returns when compared to a passive strategy, by forming a portfolio, in the long run, more than one-year (Hendrawan & Salim, 2017).

Heisler et al. (2007) analyzed the relationship between asset growth and abnormal returns for global stocks comprising the MSCI World Composite. The research results indicated that the significant return predictive power of asset growth (2-year total asset growth in particular) was proven over the examination period of 1985-2009 when the size and P/B factors were taken into account. A fundamental analysis with the Price/Earnings to Growth ratio is one way to gather information related to the fair stock value based on the company's financial statements. Although it seems complicated, the information obtained is very useful in making the investment decisions. There are many other financial ratios in a fundamental analysis in which investors can use, while the numbers needed to calculate the average financial ratio can be obtained from the balance sheet, income statement, and cash flow statement. One of financial ratios in the fundamental analysis of stocks, function of price/profit to growth ratio is as essential as the other ratios since providing an overview related to the fair stock price by applying the method of use.

The price/income to growth ratio (PEG ratio) can be briefly interpreted as a ratio measuring a fair price based on the potential increase in the future company profits. For an analyst, this ratio provides a complete picture of price-to-earnings (PER) ratio because it includes the earnings per share (EPS) growth factor or earnings per share in calculation. We call this EPS growth factor as the earnings per share (EPS) growth rate. In selecting the stocks using the GARP (growth at a fair price) investment method, the PEG ratio must include a computation. This method looks for stocks with a reasonable increase in the stock price based on the stock performance itself.

Company's Fundamentals

Fundamental analysis is the investment cornerstone. The most significant part of fundamental analysis involves digging up the financial statements and doing the quantitative analysis, which involves looking at the income, expenses, assets, liabilities, and all other financial aspects of the company to gain insight into the company's future performance (Drakopoulou, 2016). According to Tandelilin (2010), when fundamentally analyzing companies, the investors can choose those appropriate as investment alternatives (Tandelilin, 2010). This fundamental analysis states that every investment instrument has a strong foundation, namely the intrinsic value to determine through a careful analysis for the recent conditions and prospects for the future. Some experts think that fundamental analysis techniques are more appropriate for making decisions to choose which company stocks should be purchased for a long-term investment (Abdulmannan & Faturohman, 2015). Based on the above theories and previous research on value stock and growth stock, the research hypotheses were formulated as follows:

H_1: There are differences in the portfolio return of value stocks, growth stocks, and GARP stocks on the Indonesia Stock Exchange in the period of 2015-2019.
H_2: GARP stocks are more stable for growth when compared to value stocks and growth stocks on the Indonesia Stock Exchange in the period of 2015-2019.

METHODS

Research variable

The selection of value stocks was measured by looking at stocks with cheap valuations, such as price-book value (P/BV) ratio below one or P/E ratio below 10 in which P/BV is the ratio between stock value and book value of a company. If the stock price is below the book value of a company, the stock can be categorized as cheap. Meanwhile, the P/E ratio is the ratio between stock prices and company profits. The rule of thumb for cheap stocks is that the P/E ratio is below 10, but it is often necessary to compare it with its peers or the industry first. The gaps between cheap valuations and stock price increases which have not yet emerged are usually caused by a lack of information obtained, the difficulty of investors in obtaining information, and the existence of poor corporate governance. For the criteria in selecting the growth stocks, stocks which have a high valuation value and have a profit growth of above 10% per year for three consecutive years. The ratio used to determine stocks which are included in the GARP category is stocks which have the P/E growth (PEG) below 1.

The momentum of buying and selling stocks is included in the GARP category using the standard deviation as a benchmark, namely the last 5- year standard deviation as a measure to determine when to buy and sell the stocks in the GARP category—selling when the stock's valuation is +1 or +2 standard deviation and buying when the stock's valuation is -1 or -2 standard deviation.

Samples Determination

This study used a quantitative approach in a comparative form. The research was conducted to all companies listed on the Indonesia Stock Exchange (IDX) in the period of 2015-2019. The population in this study included all companies listed on the Indonesia Stock Exchange in the period of 2015-2019. To measure the IDX value category, 30 indices measured the price performance of 30 stocks which have low price valuations with adequate transaction liquidity and financial performance. Meanwhile, the 30-IDX growth category measurement is an index measuring the price performance of 30 stocks that have a relative price trend of net profit and income growth with adequate transaction liquidity and financial performance. (https://www.idx.co.id/produk/indeks/).

The samples used in this study were selected using a purposive sampling technique. Based on the predetermined sample criteria, 20 companies were obtained as the research samples consisting of 7 companies included in the value stock portfolio category, ten companies included in the growth stock portfolio category, and three companies included in the GARP stock portfolio category. The procedures to

form a portfolio of growth and value stock were based on the company's PBV and P/E ratio values. For selecting the stocks, including GARP Stocks, the researchers selected the value stocks and growth stocks category before selecting the GARP stocks by making a calculation to find the P/E Growth (PEG). The following is a table for selecting stocks categorized as value stocks, growth stocks and GARP Stocks according to the sample criteria in the research method.

The samples in this study were companies selected from the population using a purposive sampling technique. First, companies with negative PBV and PE ratios in the year of portfolio formation were excluded from the samples because negative ratios cannot be interpreted in terms of the expected growth rates. Second, companies included in the value stock category were those with a price book value (P/BV) ratio below one or P/E ratio below 10, and for the growth selection criteria, stocks belonging to companies which valuation value has the profit growth of 10% per year for 3 (three) consecutive years. Third, company shares not traded during the period of portfolio formation up to the period of calculating the portfolio performance were excluded from the samples. Fourth, the company shares included in the value stock category during the period of portfolio formation, which then turned into growth stocks within a period of one year to 3 years after portfolio formation or vice versa, were excluded from the samples. These were performed since each category's returns can be compared for one to three years after the formation of portfolios.

Method of Analysis

This study used the ANOVA method equipped with SPSS by performing four tests: Homogeneity of Variance, Between-Subjects, Post Hoc, and Homogenous Subset tests. This method used to examine the relationship between one independent variable and one or more independent variables (Ghozali & Ratmono, 2017).

The determined variable in this research was the portfolio return. Portfolio return is the imbalance received by the investors on a set of securities or assets they own. Portfolio returns in this study included Sharpe measure and Sharpe measure of risk with a standard deviation as the real risk of all owned portfolios. Portfolio performance using the Sharpe measurement was calculated using the following formula (Jogiyanto, 2010):

$$RVAR = \frac{TR_p - R_{BR}}{\sigma_p} \quad \text{..... (1)}$$

Information:

$RVAR$ = reward to variability or the Sharpe meter

TR_p = the average return on the total portfolio in a certain period

R_{BR} = the average risk-free return on assets within a certain period

$TR_p - R_{BR}$ = portfolio excess return

Descriptive statistical and difference tests analyzed this study. Difference test was used to explain whether there were differences in portfolio returns between value stocks, growth stocks, and GARP stocks, while descriptive statistical test was used to explain whether the portfolio returns were value stock, growth stock, and GARP stock, or vice versa. Different tests can be done with the parametric statistics and non-parametric statistics. If the data were normally distributed, the difference test was brought with the parametric statistical test, namely, the Independent Sample t-Test, but if the data were not normally distributed, the difference test was brought with non-parametric statistical test, namely the Mann Whitney test (Ghozali & Ratmono, 2017). The level of significance used in this study was 0.05. If the P-value difference test is <0.05, there is a significant difference in portfolio returns between a value stock and growth stock. If the P-value difference test is > 0.05, there is no significant difference in risk-adjusted return between stock value and growth stock.

RESULTS AND DISCUSSION

To see the P/E Growth (PEG) ratio, in which the PEG ratio is a financial ratio developed from PER by adding a growth component in the calculation. The PEG ratio is trusted to provide a complete calculation because a high PER ratio is not necessarily an overvalued stock if it is supported by high EPS growth. By following PER under the criteria for selecting GARP Stocks, in which the ratio used to determine stocks including in the GARP category were stocks which have the P/E growth (PEG) below 1.

$$\textbf{PEG Ratio} = \frac{\text{Price to Earnings Ratio (PER)}}{\text{EPS } \textit{Growth}}$$

Price/ Earnings to *Growth*		
< 1	1	> 1
Under*valued*	Normal Price	Over*valued*

Table 1. Portfolio of Value Stocks, Growth Stocks and GARP Stocks in a Period of 2015-2019

No	Stock Code	Name of Company	PBV Ratio	PE Ratio	PE *Growth*	Portfolio
1	BNGA	Bank CIMB Niaga Tbk.	0.67	20.80	-1.86	*Value Stocks*
2	ADRO	Adaro Energy Tbk.	0.77	9.05	-1.55	*Value Stocks*
3	ESSA	Surya Esa Perkasa Tbk.	0.93	126.40	-1.55	*Value Stocks*
4	ELSA	Elnusa Tbk.	0.86	9.25	-0.74	*Value Stocks*
5	ASRI	Alam Sutera Realty Tbk.	0.84	7.93	-0.41	*Value Stocks*
6	INKP	Indah Kiat Pulp & Paper Tbk.	0.69	4.72	0.01	GARP *Stocks*
7	ERAA	Erajaya Swasembada Tbk.	0.95	7.58	0.44	GARP *Stocks*
8	PNBN	Bank Pan Indonesia Tbk	0.70	10.97	0.73	*Value Stocks*
9	BMTR	Global Mediacom Tbk.	0.56	67.72	0.76	*Value Stocks*
10	PNLF	Panin Financial Tbk.	0.36	5.39	0.91	GARP *Stocks*
11	BBNI	Bank Negara Indonesia (Persero) Tbk.	1.46	11.11	0.36	*Growth Stocks*
12	BDMN	Bank Danamon Indonesia Tbk.	1.50	17.11	1.32	*Growth Stocks*
13	BBRI	Bank Rakyat Indonesia (Persero) Tbk.	2.46	13.34	1.34	*Growth Stocks*
14	GGRM	Gudang Garam Tbk.	3.52	20.14	1.68	*Growth Stocks*
15	TLKM	Telekomunikasi Indonesia (Persero) Tbk.	3.74	20.16	1.97	*Growth Stocks*
16	BBCA	Bank Central Asia Tbk.	4.10	22.74	0.67	*Growth Stocks*
17	ICBP	Indofood CBP Sukses Makmur Tbk.	5.36	26.65	1.43	*Growth Stocks*
18	ACES	Ace Hardware Indonesia Tbk.	6.15	26.73	1.33	*Growth Stocks*
19	MYOR	Mayora Indah Tbk.	6.63	33.77	0.14	*Growth Stocks*
20	CPIN	Charoen Pokphand Indonesia Tbk	6.65	21.86	1.86	*Growth Stocks*

Source: processed Secondary data, 2020

Based on Table 1, the results of stock selection show that the value stocks categorized as stocks with cheap valuations were with the P/BV ratio of below one or P/E ratio of below 10. One example of the research results was the ADRO stocks which have the P/BV ratio of 0.67, P/E ratio of 9.05, and PEG ratio of -1.55. It means that the value stocks were not categorized as the GARP stocks. Furthermore, the results of stock selection categorized as the growth stocks, in which the valuation was already high due to the continuous re-rating and growth of above 10% per year for three consecutive years. One example of the research results was the GGRM stocks as seen from the 30-IDX growth index. Furthermore, it was also not categorized as a GARP stock because its P/E ratio was above ten and did not comply with the terms of GARP stock category. For the selection of GARP stocks, the results obtained from this study were INKP, ERAA, and PNLF, as seen from the P/E ratio of below ten and the PEG ratio of below 1.

Based on table 1 above, there were three stocks categorized into the GARP stock criteria with the stock codes of INKP, ERAA and PNLF by following the criteria of the research samples for stocks

categorized as GARP Stocks, namely the PBV ratio of below 1, P/E ratio of below ten, and P/E growth ratio (PEG) of less than 1 (undervalued).

Table 2. One Way ANOVA Test

ANOVA

Rate of return

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	14.399	2	7.200	11.210	.001
Within Groups	10.919	17	.642		
Total	25.318	19			

Based on Table 2, the one-way test results based on the SPSS output (ANOVA) above shows that the significance value was more significant than 0.05 (0.001<0.05). So it can be concluded that the average rate of return from this investment strategy was different.

Table 3. Descriptive

Descriptive

Rate of Return

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Value Stocks	7	-.66	1.083	.409	-1.66	.34	-2	1
Growth Stocks	10	1.21	.621	.196	.77	1.65	0	2
GARP Stocks	3	.45	.450	.260	-.66	1.57	0	1
Total	20	.44	1.154	.258	-.10	.98	-2	2

Based on Table 3, the descriptive analysis results obtained from the SPSS output, the return on value stocks in the year after the portfolio formation was -66; the rate of return for growth stocks in the year after portfolio formation was 1.21; the return on GARP stocks in the year after the portfolio formation was 0.45. So the rate of return in the period of 2015-2019 based on the company's fundamentals, stock selection based on the GARP stock category, was higher than both value stocks and growth stocks.

Table 4. Normality Test

Normality Tests

	Strategy	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Rate of Return	*Value Stocks*	.223	7	.200*	.876	7	.211
	Growth Stocks	.270	10	.037	.906	10	.256
	GARP *Stocks*	.178	3	.	.999	3	.951

Based on Table 4, the SPSS output analysis shows that the significance values according of the value stock strategy, growth stock strategy, and GARP stock strategy were respectively 0.211 (> 0.05), 0.256 (> 0.05), and 0.951 (> 0.05). The analysis results show that those three investment strategies have a significance value of more than 0.05 (> 0.05). It means that the data were normally distributed, and the normality assumption was fulfilled.

Table 5. Homogeneity of Variance Test

Homogeneity of Variance Test					
		Levene Statistic	df1	df2	Sig.
Rate of Return	Based on Mean	2.682	2	17	.097
	Based on Median	2.266	2	17	.134
	Based on Median and with adjusted df	2.266	2	14.907	.138
	Based on trimmed mean	2.621	2	17	.102

From the Homogeneity Test results based on the SPSS output results above, it can be concluded that the significance value was greater than 0.05 (0.097> 0.05). Thus, it can be concluded that the data variant was Homogeneous.

Table 6. Post Hoc Test

Rate of Return

Tukey B[a,b]

Strategy	N	Subset for alpha = 0.05	
		1	2
Value Stocks	7	-.66	
GARP *Stocks*	3	.45	.45
Growth Stocks	10		1.21

Means of groups in the displayed homogeneous subsets .

From the Post-Hoc test results based on the SPSS (TUKEY) output above, it can be concluded that in subset 1, there was a difference in return between the value stocks and GARP stocks. It means that the rate of return between the value stocks and GARP stock was different, but not significant. In subset 1, there was a difference in return on GARP stocks and growth stocks. It means that a difference in return between GARP stocks and growth stocks was significantly different.

Hypothetical Test

The first hypothesis was whether there was a difference in the portfolio return of value stocks, growth stocks, and GARP Stocks on the Indonesia Stock Exchange in the period of 2015-2019. The results of above test show that the difference between the return value, growth, and GARP categories was significant at 0.05 (p> 0.05). Statistically, there was no difference in portfolio returns between all types in Indonesia. However, several categories were positive, during the study period for portfolio formation based on P/E, P/B, and P/C in 2015 and 2019. Thus, the first hypothesis was received.

The second hypothesis was whether or not the GARP stocks stable for the growth when compared to the value stocks and growth stocks on the Indonesia Stock Exchange in the period of 2015-2019. The mean difference results show that not all differences in the average return between value stocks, growth stocks, and GARP stocks were optimistic. Likewise, the results of the above test were significant at 0.05 (p> 0.05).

The empirical literature on value investment versus growth investment generally finds the value investment become favorable for a long-term investment strategy. In addition to the higgledy-piggledy phenomenon regarding to the successive earnings growth, many prior studies found that the growth stocks were overpriced and more potentially risky when the investors' high expectations were not met. The researchers also argued that the actual growth in earnings, sales, and assets were better indications for the stocks' growth potentials, while the price multiples are considered as the poor measures for firms in the growing industries. Although value investment and growth investment were often perceived as the opposite investment styles, it was also argued that these two investment strategies should not be mutually exclusive. The growth-at-a-reasonable price (GARP) investment strategy is essentially a disciplined growth

investment technique which enables the investors to avoid paying the unreasonable or uncertain prices for future growth.

In the previous study conducted by (Sumantika, 2016), the researcher found that based on the five tested models, the undervalued stocks produced the highest rate of return if formed based on a combination of PBV with ROE, PER with the earnings growth, PBV, and book value growth. The undervalued stocks generated high returns at all market capitalization levels, momentum, price, and volume levels, where the highest returns were found in 1) loser stock, 2) small-cap, 3) low price, and 4) at high volume. This study was intended to look for stocks which have the potential to grow, yet sold at a fair price. GARP itself does not require buying the heavily discounted stocks. Finding a bright business which has the potential to grow in a long term and sells at a fair price is the goal of GARP. When market conditions get worse, growth stocks are usually ones with the worst price declines. This is even worse if the economic conditions causing the profit growth are not as high as expected. Conversely, during a bullish market, the value stock will increase more slowly than the market to increase and lag. GARP stocks will move between two types of stocks in the bullish or bearish conditions. The rate of return on the GARP stocks has the difference between growth stocks and value stocks. The GARP stocks tend to be more stable with the rate of return growth in the long-term investments. Thus, GARP stocks are highly selective and combine the two stock selection concepts to potentially experience a long-term return growth.

This research shows that the GARP stocks can be found in sectors forgotten by the market. They may rarely appear on the 'most active stocks' lists, yet a good thing for us in the long run. Its stock price will be encouraged to rise in a controlled manner, along with the growth of its profit. In the previous research conducted by (Hodnett & Hsieh, 2012), the GARP selection criteria ensured that the growth stocks in the portfolios were not overpriced as traded at the reasonable P/S ratios. The research results revealed that although the pure growth portfolios outperformed the market proxy on a risk-adjusted basis, their Sharpe ratios failed to improve when the portfolios became more concentrated as higher returns for the more concentrated portfolios were achieved at the expense of higher risk. By removing the stocks traded at an above-average P/S multiple, the GARP portfolios outperformed their otherwise identical pure growth portfolios on a risk-adjusted basis. The GARP selection technique has contributed to the existing investment strategy to improve returns, reduce risk, and enhance the risk-adjusted returns.

CONCLUSION

Based on the results of data analysis and discussion above, it can be concluded that there is a significant difference in the rate of return between value stocks, growth stocks, and GARP stocks in the period of 2015-2019. The criteria for selecting the GARP Stocks ensure that the growth stocks in the portfolio are not expensive as traded at a reasonable P/E ratio. The GARP selection techniques contribute to the existing investment strategies to increase returns, reduce risks, and enhance the risk-adjusted returns. The results show that value stock stocks are classified into losers at t-1 and become winners at t + 1. Meanwhile, the growth stocks ranked as winners at t-1 become losers at t + 1. However, in a long term (5-year holding period), the researcher has found that there is a GARP stock strategy combining the concept of value stocks and growth stocks become more stable growth rate of return of the value stocks and growth stocks. These value stocks generate a higher rate of return, especially when there is a positive change in the company's fundamentals (undervalued value stock). On the other hand, growth stocks will produce the lowest rate of return, especially when investors realize that the actual growth rate is lower than the expected growth rate or, in other words, when problems occur in terms of the company's financial performance. For portfolio selection for GARP stocks, there is a significant growth rate of return in the long run.

Based on the test results, the researcher has found that the undervalued stocks produce the highest rate of return if they are formed based on a combination of PBV and ROE, PER with earnings growth as well as PBV with book value growth. The undervalued stocks generate high returns at all levels of market

capitalization, momentum, price levels, and volumes where the highest returns found in 1) loser stock, 2) small-cap, 3) low price and 4) at high volume.

Based on the outlined conclusions, several suggestions are recommended as follows. Short-term investors in the Indonesian capital market is recommended to use a strategy by forming a value stock portfolio for investment because the value stock portfolios provide higher returns than growth stock portfolios in 1- 3 years after the portfolio formation. At the same time, the investors who are interested in making investment for a long term can use an investment strategy by combining the value investment and growth investment for the expected rate of return, namely GARP investment and GARP Investors. They think that the profitable growth can only generate if the financial condition is included in the criteria of capital structure. Too large debt will have the potential to overthrow the portfolio ships when the wind reverses. Furthermore, a high ROE is another indicator to use as a guideline to find the GARP stocks.

The research results reveal the concept of GARP appears to be a solution to the weaknesses of both investment camps, known as value investment and growth investment by combining which stocks have more profitable growth, but the valuation value is still reasonable. The implementation of GARP concept in managing the investment portfolios, criteria for choosing stocks is considered having more profitable growth first in forming the GARP because investors in the stock market tend to expect having high investment returns with a limited time horizon. The implementation of GARP concept prevents the investors from the value trap because the GARP strategy is a hybrid solution for the growth stocks and value stocks. Thus the GARP investors will experience a combination of returns.

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